REMARKS

Claims 21-38 are currently pending in this application. No new matter has been added to this application by this Amendment. In view of the remarks to follow, reconsideration of this application is respectfully requested.

In the Notice of Non-Compliant Amendment mailed August 8, 2007, the Examiner noted that a complete listing of the claims is not present and stated "please note that claims 1-25 are canceled." Applicants have submitted the amendment filed July 26, 2007 with a complete listing of the claims. Please note that the Examiner renumbered the claims filed in the preliminary amendment filed March 30, 2005 as Claims 21-36 in the Office Action mailed March 26, 2007. Accordingly, the complete listing of claims indicates that Claims 1-20 have been canceled.

In view of the amendment submitted herewith, it is respectfully submitted that all claims pending in this application, namely Claims 21-38, are in condition for allowance. Accordingly, early and favorable reconsideration of this application is respectfully requested. Should the Examiner feel that a telephone or personal interview may facilitate resolution of any remaining matters, she is respectfully requested to contact Applicant's attorney at the number indicated below.

Respectfully submitted,

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Atty. Docket No: 2866 (203-3509PCTUS)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Lee Ann Olson et al. EXAMINER: Michelle Lopez

SERIAL NO.: 10/529,799 GROUP: 3721

FILED: March 30, 2005 DATED: September 10, 2007

FOR: **SURGICAL STAPLER WITH UNIVERSAL ARTICULATION AND TISSUE PRE-CLAMP**

Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Sir:

In response to the Office Action mailed March 26, 2007, please amend this application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on September 10, 2007.

Dated: September 10, 2007

Christopher G. Trainor

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-20 (Previously canceled).

Claim 21 (Previously presented): A surgical stapler comprising:

a tool assembly including a cartridge assembly having a plurality of staples and an anvil assembly, the anvil assembly being movable in relation to the cartridge assembly between open and approximated positions:

a shaft; and

an intermediate pivot member pivotally secured to the tool assembly about a first pivot axis and pivotally secured to the shat about a second pivot axis, then first pivot axis being substantially orthogonal to the second pivot axis.

Claim 22 (Previously presented): A surgical stapler according to Claim 21, further including a dynamic clamping member positioned to translate through the tool assembly to eject the plurality of staples from the cartridge.

Claim 23 (Previously presented): A surgical stapler according to Claim 22, wherein the plurality of staples are aligned in a plurality of linear rows.

Claim 24 (Previously presented): A surgical stapler according to Claim 22, further including a clamping collar supported adjacent a proximal end of the anvil assembly and the cartridge assembly, the clamping collar being movable from a first position to a second position to move the anvil assembly and the cartridge assembly from the open position to the approximated position.

Claim 25 (Previously presented): A surgical stapler according to Claim 24, further including a sled which is movable with the dynamic clamping member through the cartridge assembly from a first position to a subsequent position to operatively eject the plurality of staples from the cartridge assembly through tissue and against the anvil assembly to staple tissue disposed between the anvil assembly and the cartridge assembly.

Claim 26 (Previously presented): A surgical stapler according to Claim 22, wherein the dynamic clamping member includes a first mechanical interface which slidingly engages the anvil assembly and a second mechanical interface which slidably engages the cartridge assembly, the first and second mechanical interfaces of the dynamic clamping member being in substantial vertical registration relative to one another to oppose expansive forces associated with clamping and stapling tissue and to maintain a substantially uniform gap between tissue contacting surfaces of the anvil and the cartridge assembly during stapling.

Claim 27 (Previously presented): A surgical stapler according to Claim 26, wherein the first mechanical interface of the dynamic clamping member includes a pin which translates within a corresponding slot disposed within an interior of the anvil assembly.

Claim 28 (Previously presented): A surgical stapler according to Claim 27, wherein the slot disposed within the interior of the anvil assembly includes a generally T-shaped cross section.

Claim 29 (Previously presented): A surgical stapler according to Claim 28, wherein the second mechanical interface of the dynamic clamping member includes a flange which secures the dynamic clamping member for translation within a corresponding slot disposed within the cartridge assembly.

Claim 30 (Previously presented): A surgical stapler according to Claim 25, wherein the sled includes at least one angled surface which upon movement thereof forces the staples from the cartridge assembly through tissue and against the anvil assembly to deform and close the staples about tissue.

Claim 31 (Previously presented): A tool assembly according to Claim 21, wherein the tool assembly is part of a disposable loading unit for removable attachment to a distal end of the shaft of a surgical stapler.

Claim 32 (Currently amended): A tool assembly comprising:

an anvil and a cartridge assembly, the cartridge assembly having a plurality of staples and being movable in relation to the anvil between an open position and an approximated position, the cartridge assembly and the anvil defining a tissue gap in the approximated position;

a clamp collar positioned adjacent the proximal end of the cartridge assembly and the anvil and being movable from a first position to a second position to effect movement of the anvil in relation to the cartridge assembly from the open position towards the approximated position, wherein in the second position, the clamp collar is positioned about the proximal ends of the cartridge assembly and anvil; and

a dynamic clamping member movably positioned in relation to the anvil and the cartridge assembly, the dynamic clamping member being movable from a first position to a second position to define a maximum tissue gap between the anvil and the cartridge assembly adjacent the dynamic clamping member during ejection of the plurality of staples from the cartridge assembly.

Claim 33 (Previously presented): A tool assembly according to Claim 32, wherein the

plurality of staples are aligned in a plurality of linear rows.

Claim 34 (Previously presented): A tool assembly according to Claim 32, further including a sled which is movable with the dynamic clamping ember through the cartridge assembly from a first position to a subsequent position to operatively eject the plurality of staples from the cartridge assembly through tissue and against the anvil assembly to staple tissue disposed between the anvil assembly and the cartridge assembly.

Claim 35 (Previously presented): A tool assembly according to Claim 34, wherein the dynamic clamping member includes a first mechanical interface which slidingly engages the anvil assembly and a second mechanical interface which slidably engages the cartridge assembly, the first and second mechanical interfaces of the dynamic clamping member being in substantial vertical registration relative to one another to oppose expansive forces associated with clamping and stapling tissue and to define the maximum tissue gap between tissue contacting surfaces of the anvil and the cartridge assembly during stapling.

Claim 36 (Previously presented): A surgical stapler according to Claim 32, further including a sled which is movable with the dynamic clamping member through the cartridge assembly from a first position to a subsequent position to operatively eject the plurality of staples from the cartridge assembly through tissue and against the anvil assembly to staple tissue disposed between the anvil assembly and the cartridge assembly.

Claim 37 (New): A surgical stapler according to Claim 21, wherein the cartridge assembly is pivotally secured to the intermediate pivot member and the anvil assembly is pivotally supported on the cartridge assembly.

Claim 38 (New): A surgical stapler according to Claim 22, wherein the dynamic

clamping member translates axially through the tool assembly.

REMARKS

Claims 21-38 are currently pending in this application. By this amendment, Claim 32 has been amended and Claims 37 and 38 have been added to this application. In accordance with the Examiner's objection to the numbering of the claims under 37 C.F.R. § 1.126, Claims 26-41 have been renumbered as Claims 21-36. In view of the amendments above and the remarks that follow, reconsideration and allowance of this application are respectfully requested.

In the Office Action mailed March 26, 2007, Claims 21-25, 30, 32-34 and 36 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,312,023 to Green et al. ("Green"). Green discloses a surgical stapling apparatus shown in FIG. 1 of Green reproduced below. The apparatus 50 includes a frame portion 52, an elongated portion 54, an anvil member 56 and an articulating cartridge assembly 58. Anvil member 56 pivots or articulates in relation to cartridge assembly 58 between an open position and a closed position. Referring to FIGS. 16 and 23 of Green reproduced below, forward housing 270 of cartridge assembly 58 is secured to rearward housing 272 about a rivet 370 to enable forward housing 270 to articulate in relation to rearward housing 272.

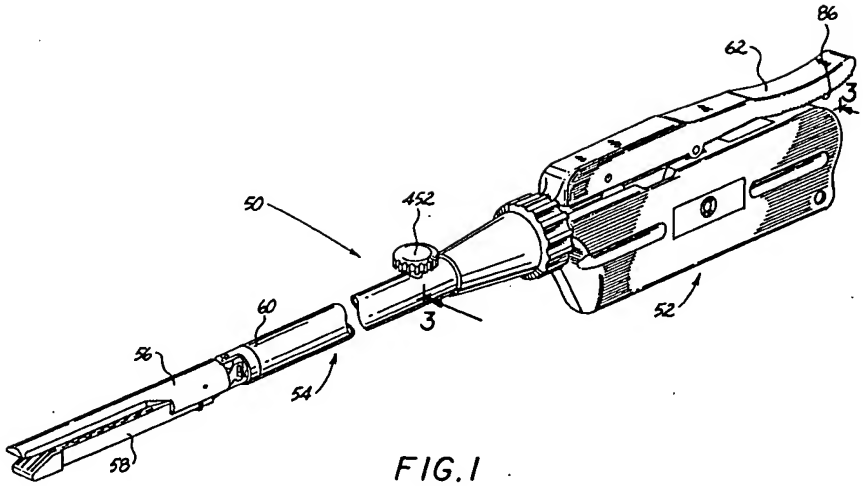
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FIG. 1

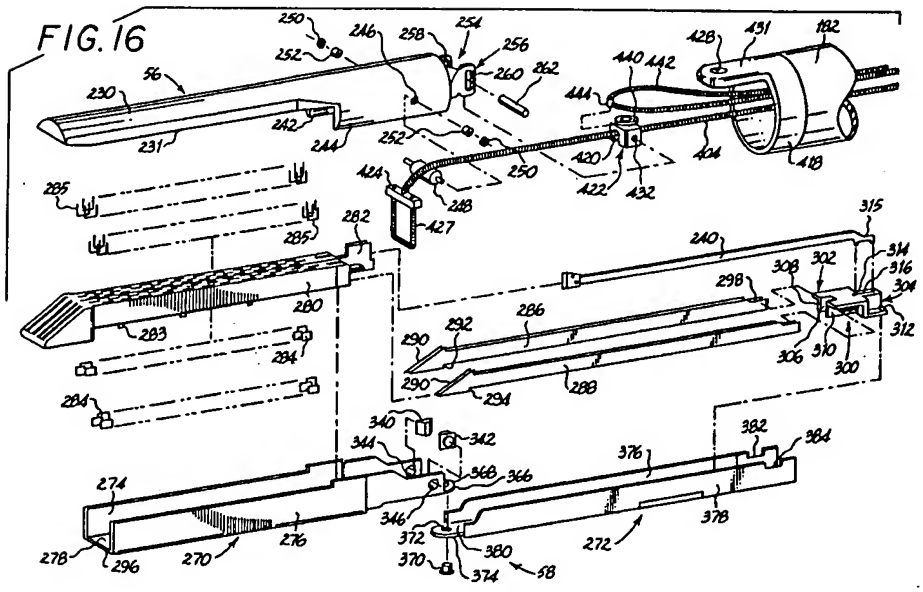
FIG. 16
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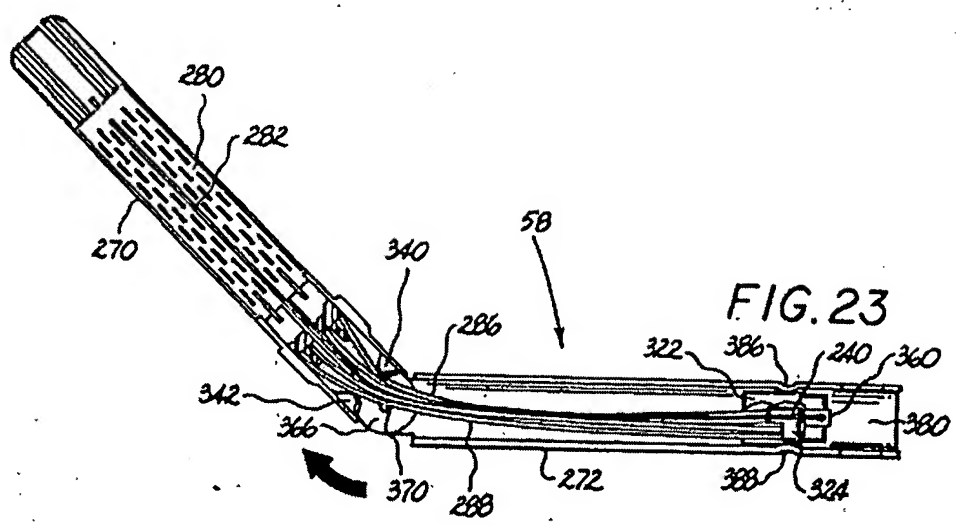


FIG. 23

Claim 21 recites a surgical stapler comprising, inter alia, a tool assembly, a shaft, and an intermediate pivot member pivotally secured to the tool assembly about a first pivot axis and pivotally secured to the shaft about a second pivot axis, the first pivot axis being substantially orthogonal to the second pivot axis. Applicants respectfully traverse the rejection of Claim 21 over Green.

In the Office Action, the Examiner states the following:

> "Green discloses a surgical stapler comprising a tool assembly including a cartridge assembly 58 having a plurality of staples and an anvil assembly 56, the anvil assembly being movable in relation to the cartridge assembly between open and approximated positions, a shaft 60, and an intermediate pivot member pivotally secured to the tool assembly about a first pivot axis (as shown in Fig. 1 and the Abstract) and pivotally secured to the shaft about a second pivot axis, the first pivot axis being substantially orthogonal to the second pivot axis as shown in Figs. 52-54 (Claim 21)..."

Applicants respectfully disagree. As discussed above, Green's cartridge forward housing 270 is pivotally attached to rearward housing 272 about a rivet 370. Rivet 370 enables cartridge forward housing 270 to articulate in relation to rearward housing 272 about a single axis. Since Green's anvil member 56 is pivotally supported on forward housing 270, Green's anvil member 56 and cartridge forward housing 270 can articulate in relation to rearward housing 272 of cartridge assembly 58. Green does not disclose an intermediate pivot member which is pivotally secured to the tool assembly about a first pivot axis and pivotally secured to the shaft about a second pivot axis as recited in Claim 21. In contrast, Green's cartridge forward housing 270 and anvil member 56 are limited to articulation about a single pivot axis, whereas the tool assembly as recited in Claim 21 is capable of articulation about a first pivot axis and a second pivot axis which is orthogonal to the first pivot axis. For this reason, Applicants believe that Claim 21 is patentable over Green.

It is noted that FIGS. 52-54 of Green, identified by the Examiner (FIG. 54 is reproduced below) illustrate a second embodiment of Green's apparatus which includes a tool assembly which can articulate about a single pivot axis and rotate about its longitudinal axis. The apparatus shown in FIGS. 52-54 does not include an intermediate pivot member which is "pivotally secured to the tool assembly about a first pivot axis" and "pivotally secured to the shaft about a second pivot axis, the first pivot axis being substantially orthogonal to the second pivot axis" such as recited in Claim 21.

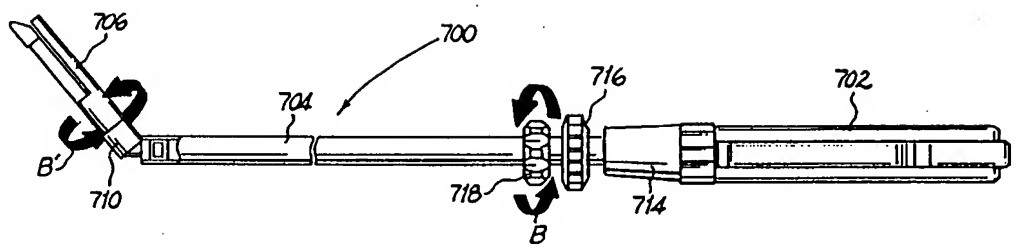
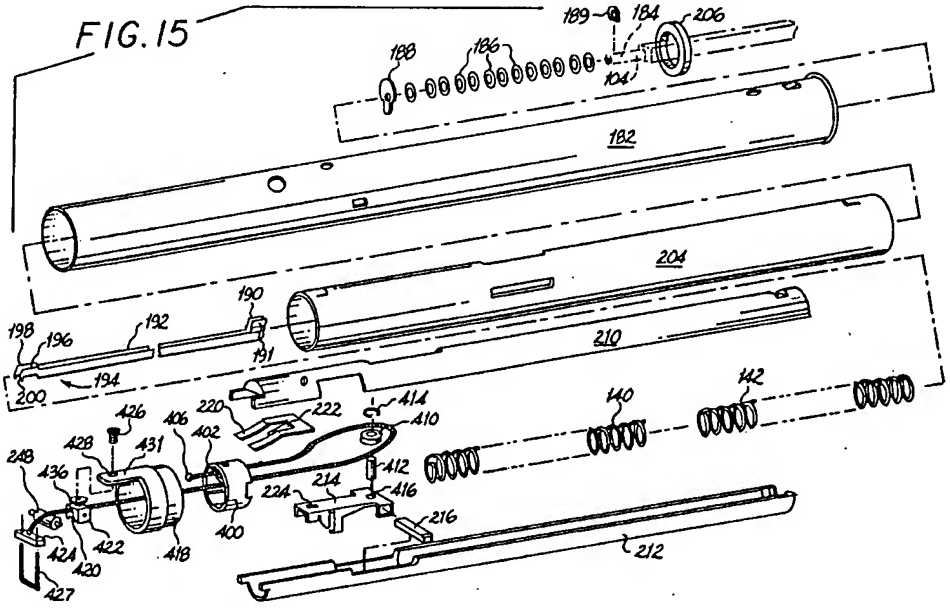


FIG. 54

Claim 32 recites a tool assembly comprising, inter alia, an anvil and a cartridge assembly, the cartridge assembly and the anvil defining a tissue gap in the approximated position, a clamp collar positioned adjacent the proximal end of the cartridge assembly and the anvil and being movable from a first position to a second position to effect movement of the anvil in relation to the cartridge assembly from the open position towards the approximated position, wherein in the second position, the clamp collar is positioned about the proximal ends of the cartridge assembly and anvil, and a dynamic clamping member movably positioned in relation to the anvil and the cartridge assembly, the dynamic clamping member being movable from a first position to a second position to define a maximum tissue gap between the anvil and the cartridge assembly adjacent the dynamic clamping member during ejection of the plurality of staples from the cartridge assembly.

Applicants respectfully request reconsideration of amended Claim 32. More specifically, Green fails to disclose, inter alia, the clamp collar or the dynamic clamping member recited in amended Claim 32. In contrast, Green discloses a pulley system including a tube collar 400, a cable 404, an annular pulley 410 and a cylindrical pulley 248. See FIG. 15 reproduced below. Translation of tube collar 400 causes cable 404 to move about pulley 410 and about pulley 248 to exert a force on pulley 248 and urge anvil member 56 in relation to cartridge assembly 58.

Green's tube collar in its second position is not positioned about the proximal ends of the cartridge assembly and anvil member as recited in Claim 32.



Green also fails to disclose a dynamic clamping member which is movable from a first position to a second position "to define a maximum tissue gap between the anvil and the cartridge assembly adjacent the dynamic clamping member during ejection of the plurality of staples from the cartridge assembly" as recited in Claim 32. The Office Action did not identify the specific element in Green which teaches the recited dynamic clamping member as discussed above. For any or all of the reasons outlined above, Applicants believe that Claim 32 is patentable over Green.

Claims 22-25 and 30 and Claims 33, 34 and 36 depend from Claims 21 and 32, respectively. For at least the reasons discussed above with respect to Claims 21 and 32, inter

alia, Applicants believe that Claims 22-25, 30, 33, 34 and 36 patentably define over Green.

In the Office Action, Claims 26-29, 31 and 35 were rejected over Green in view of U.S. Patent No. 5,865,361 to Milliman. Milliman was cited by the Examiner to teach the use of a dynamic clamping member for the purpose of uniformly maintaining a gap between the anvil and cartridge during stapling. Claims 26-29 and 31 depend from Claim 21. Milliman fails to cure the deficiencies of Green with respect to Claim 21 as discussed above. For at least the reasons discussed above, Applicants believe that Claims 26-29 and 31 patentably define over Green and Milliman, taken alone or in combination.

With regard to Claim 35, which depends from Claim 32, Milliman also fails to cure the deficiencies of Green with respect to Claim 32. More specifically, Milliman fails to disclose or suggest "a clamp collar...wherein in the second position, the clamp collar is positioned about the proximal ends of the cartridge assembly and anvil." In contrast, Milliman uses single element, i.e., a drive member 212 to both approximate the cartridge assembly and anvil and to eject fasteners from the cartridge assembly. For this reason, Applicants believe that Claim 32 and Claim 35 which depends therefrom are patentable over Green and Milliman, taken alone or in combination.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims pending in this application, namely claims 21-38, are in condition for allowance. Accordingly, early and favorable reconsideration of this application is respectfully requested. Should the Examiner feel that a telephone or personal interview may facilitate resolution of any

remaining matters, he is respectfully requested to contact Applicant's attorney at the number indicated below.

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